# ABSTRACT

A reversibly immortalized human pancreatic islet cell line containing an hTERT gene and an SV40T gene each interposed between a pair of LoxP sequences, characterized in that it is capable of producing insulin and enhancing expression of insulin after excising the hTERT gene and the SV40T gene, in particular, NAKT-13 (deposited with International Patent Organism Depository, National Institute of Advanced Industrial Science and Technology, address: AIST Tsukuba Central 6, 1-1, Higashi 1-Chome, Tsukuba-shi, Ibaraki-ken, 305-8566 Japan, deposited date: September 4, 2003, accession number: FERM BP-08461) or a passage cell line thereof; a human pancreatic islet cell obtained by excising the hTERT gene and the SV40T gene from the reversibly immortalized human pancreatic islet cell line or passage cell line thereof; and use of these cells. By using the reversibly immortalized human pancreatic islet cell line of the invention insulin-producing cells can be easily and surely obtained in a number enough to meet the demand.